

IN THE CLAIMS:

This listing of claims replaces all prior versions of claims in the application.

Listing of Claims

Claims 1-3 (Canceled)

4. (previously presented) A vacuum processing apparatus comprising a vacuum processing chamber having a processing table for supporting an object to be processed and carrying out processing using a gas, the vacuum processing chamber having an axisymmetric structure, wherein

the vacuum processing chamber has a double wall structure and comprises a gate valve for sealing an opening through which the object enters the processing chamber.

5. (previously presented) A vacuum processing apparatus comprising a vacuum processing chamber having a processing table for supporting an object to be processed and carrying out processing using a gas, the vacuum processing chamber having an axisymmetric structure with respect to the object to be processed, wherein

the vacuum processing chamber has a double wall structure and comprises a gate valve for sealing an opening formed to the chamber wall through which the object enters the processing chamber; and

the shape of the gate valve for sealing the opening formed to the inner vacuum processing chamber wall is determined so that it does not interfere with the axisymmetric structure of the vacuum processing chamber.

6. (previously presented) A vacuum processing apparatus comprising a vacuum processing chamber having a processing table for supporting an object to be processed and carrying out processing using a gas, the vacuum processing chamber having an axisymmetric structure with respect to the object to be processed, wherein the vacuum processing chamber has a double wall structure and comprises a gate valve for sealing an opening formed to the chamber wall through which the object enters the processing chamber; and an inner vacuum processing chamber has a wall divided into two portions, an upper portion and a lower portion, with the processing table interposed between the two portions.